

### Office Action Summary

**Application No.**

10/714,192

**Applicant(s)**

DINI ET AL.

**Examiner**

RAMY M. OSMAN

**Art Unit**

2157

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-24 and 26-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-24 and 26-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI-108)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Status of Claims***

1. This action is responsive to amendment filed on December 6, 2007, where applicant amended claims 1,3,13,24,26-54, cancelled claims 2&25, and added new claims 45-54. Claims 1,3-24,26-54 are pending.

### ***Response to Arguments***

2. Applicant's arguments, filed 12/6/2007, with respect to claims 1,3-24,26-54 have been considered but are moot in view of the new ground(s) of rejection.

3. The indicated allowability of claims 20-23 is withdrawn in view of the new grounds of rejection presented below.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1,3-24,26-54 rejected under 35 U.S.C. 101 because the claims are directed to non-statutory subject matter. The claims appear to be directed to nothing more than a mathematical algorithm, which is an abstract idea. The preamble of the claims recite "measuring the availability of a network element...". The body of the claims consist solely of mathematical operations involved in determining the "availability". But nowhere in the claims is there mentioned a practical application of those operations. Although claim 1, for example, recites "storing the second availability value", neither the claim nor the specification provide an

explanation that “storing” entails a practical application with a useful, concrete and tangible result(s). The claims are therefore rejected as not being a practical application to a judicial exception. **See MPEP Chapter 2106.01 and Chapter 2106.02**

6. Claims 24 and 36 rejected under 35 U.S.C. 101 because the claims are directed to non-statutory subject matter. The claims recite “computer-readable storage medium carrying one or more instructions ...”. According to ¶ 74 of Applicants specification, “carrying” embodies communicating signals. Thus it is seen that the scope of these claims cover signals. However, signals do not fall within any of the statutory categories and the claims are therefore not patentable subject matter. **See MPEP Chapter 2106 Section IV.B.¶4 and Chapter 2106.01**

7. Claims 43,53 and 54 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims recite an apparatus that comprises "means for" limitations. Paragraph 71 of Applicants specification states that a possible embodiment of the invention can be software. The scope of the apparatus claims may encompass a program per se, which does not fall within any of the statutory categories. The claims are not directed to a process occurring as a result of executing the program on an actual physical device. For these claims to be statutory, an actual hardware device is required, where the device is programmed to operate in accordance with the program in order to realize the functionality of that program. These claims do meet this criterion and are therefore deemed non-statutory.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1,3-24,26-54 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. **See MPEP § 2172.01.** Each of the claims fail to establish an interrelationship between the preamble and the body of the claim. The body of claim 1, for example, fails to establish how any of the operational steps interrelate to the “network element” mentioned in the preamble.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**11. Claims 1,7-9,13,14,24,30-32,36-37,43-47,51,54 rejected under 35 U.S.C. 102(b) as being anticipated by Puranik et al (US Patent No 6,003,090).**

12. In reference to claim 1, Puranik teaches a method of measuring the availability of a network element or service, the method comprising the computer-implemented steps of:

determining a second availability value based on a first availability value, a first time value, a second time value that differs from the first time value, and a first operational state value (column 7 lines 7-15 & 23-37); and

storing the second availability value (column 7 lines 54-58);

wherein determining the second availability value further comprises: determining a dividend based on the first availability value, the first time value, the second time value, and the

first operational state value; and dividing the dividend by the second time value (column 7 lines 7-15).

13. In reference to claim 7, Puranik teaches a method as recited in Claim 1, further comprising the steps of: determining a third availability value based on the second availability value, the second time value, a third time value that differs from the second time value, and a second operational state value(column 7 lines 15-24); and storing the third availability value (column 7 lines 54-58).

14. In reference to claim 8, Puranik teaches a method as recited in Claim 1, wherein determining the second availability value further comprises the steps of: detecting a command; and in response to detecting the command, determining a third availability value based on the second availability value, the second time value, a third time value that differs from the second time value, and a second operational state value (column 7 lines 7-37).

15. In reference to claim 9, Puranik teaches a method as recited in Claim 1, further comprising the steps of: detecting an event while a current state is a first state that is in a first state cluster; in response to detecting the event, selecting, based on the current state and a type of the event, a second state that is in a second state cluster; determining whether the first state and the second state are in different state clusters (column 6 lines 9-30); and

in response to determining that the first state and the second state are in different state clusters, determining a third availability value based on the second availability value, the second time value, a third time value that differs from the second time value, and a second operational state value that differs from the first operational state value (column 7 lines 15-24).

16. In reference to claim 13, Puranik teaches a method of measuring the availability of a network element or service, the method comprising the computer-implemented steps of:

determining a second availability value based on a first availability value, a first time value, a second time value that differs from the first time value, and a first operational state value (column 7 lines 7-15 & 23-37); and

storing the second availability value (column 7 lines 54-58);

determining a third availability value based on a first availability value, the second availability values, and a weight value (column 7 lines 15-24); and

storing the third availability value (column 7 lines 54-58).

17. In reference to claim 14, Puranik teaches a method as recited in Claim 13, wherein determining the third availability value further comprises the steps of: determining a dividend based on the first availability value, the second availability value, and the weight value; determining a divisor based on the weight value; and dividing the dividend by the divisor (column 7 lines 1-15).

18. In reference to claims 24 & 30-32, these are computer readable storage medium claims that correspond to the method claims of claims 1 & 7-9. Therefore, claims 24 & 30-32 are rejected based upon the same rationale as given for claims 1 & 7-9 above.

19. In reference to claims 36-37, these are computer readable storage medium claims that correspond to the method claim of claim 1. Therefore, claims 36-37 are rejected based upon the same rationale as given for claim 1 above.

20. In reference to claims 43-47,51 & 54, these are apparatus claims that correspond to the method claims of claims 1 & 7-9. Therefore, claims 43-47,51 & 54 are rejected based upon the same rationale as given for claims 1 & 7-9 above.

### ***Conclusion***

21. The above rejections are based upon the broadest reasonable interpretation of the claims. Applicant is advised that the specified citations of the relied upon prior art, in the above rejections, are only representative of the teachings of the prior art, and that any other supportive sections within the entirety of the reference (including any figures, incorporation by references, claims and/or priority documents) is implied as being applied to teach the scope of the claims.

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached Form 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAMY M. OSMAN whose telephone number is (571)272-4008. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RMO  
February 16, 2008